AMENDMENTS TO THE CLAIMS

- 1. (Currently Amended) A new carbonated eardy typecrushed, mass-type vitamin preparation which consists essentially of at least one vitamin selected from the group consisting of fat-soluble vitamins and water soluble vitamins, sucrose and; starch syrup(maltose syrup), sodium bicarbonate; and carbon dioxide, wherein the carbonated eardy typecrush, mass type vitamin preparation is manufactured by
- 1) dissolving, suspending or emulsifying vitamin, sucrose, and starch syrup(maltose syrup) in a suitable amount of water and the mixture is heated rapidly to obtain a molten mass;
 - 2) concentrating the molten mass to about 1-3 parts by weight of water;
- 3) transferring the concentrated molten mass to a pre-heated autoclave where color, essence and sodium bicarbonate are added by rapid stirring and carbon dioxide gas is injected by rapid stirring to disperse the carbon dioxide bubbles under high pressure;
- 4) introducing the molten carbon-dioxide-gasified mass into a suitable tube or candy-type mold;
- 5) cooling the tube or mold injected with molten carbon-dioxide-gasified mass to or below 15°C;
- 6) removing the cooled, carbonated candy type mass and crushing it below 20°C, and below 40% of RH;
 - 7) passing the crushed carbonated mass through a standard sieve; and
- 8) sealing the carbonated eardy type mass or the sieved crushed carbonated mass in a hermetic package.

Docket No.: 1599-0299PUS1

Application No. 10/618,818
Amendment dated June 26, 2008

After Final Office Action of April 3, 2008

2. (Currently Amended) The carbonated eardy-typecrushed, mass-type vitamin

preparation of claim 1 wherein the at least one vitamin is selected from the group consisting of

vitamin A₁(retinol), vitamin A₂(3-dehydroretinol), vitamin A₃, vitamin D₂(ergocalciferol),

vitamin D₃(cholecalfeferol), provitamin D₂(ergosterin), provitamin D₃(dehydrocholesterol),

vitamin $E(\alpha-\text{tocopherol}, \beta-\text{tocopherol}, \gamma-\text{tocopherol}, \delta-\text{tocopherol})$, vitamin $F(\text{linoleic acid}, \beta-\text{tocopherol})$

linolenic acid), vitamin K_1 , vitamin K_2 , vitamin U, vitamin B_1 (thiamine), vitamin B_2 (riboflavin),

vitamin B₆(pyridoxin), nicotinamide, nicotinic acid, pantothenic acid, vitamin H(biotin), folic

acid, vitamin B₁₂(cyanocobalamin), choline, inositol, vitamin L₁(anthranilic acid), vitamin L₂(5'-

thiomethyladenosine), vitamin B₁₃(orotic acid), and vitamin C(ascorbic acid).

3. (Previously Presented) A process for the preparation of a new carbonated candy-type

vitamin preparation comprising at least one vitamin selected from the group consisting of fat-

soluble vitamins and water soluble vitamins, sucrose and; starch syrup(maltose syrup), sodium

bicarbonate; and carbon dioxide, wherein the carbonated candy-type vitamin preparation is

manufactured by

1) dissolving, suspending or emulsifying sucrose, starch syrup(maltose syrup) and other

ingredients, except carbon dioxide and sodium bicarbonate in a suitable amount of water and the

mixture is heated rapidly to obtain a molten mass;

2) concentrating the molten mass to about 1-3 parts by weight of water;

Application No. 10/618,818 Amendment dated June 26, 2008

After Final Office Action of April 3, 2008

3) transferring the concentrated molten mass to a pre-heated autoclave where color, essence

and sodium bicarbonate are added by rapid stirring and carbon dioxide gas is injected by rapid

stirring to disperse the carbon dioxide bubbles under high pressure;

4) introducing the molten carbon-dioxide-gasified mass into a suitable tube or candy-type

mold;

5) cooling the tube or mold injected with molten carbon-dioxide-gasified mass to or below

15°C;

6) removing the cooled, carbonated candy-type mass and crushing it below 20°C, and below

40% of RH;

7) passing the crushed carbonated mass through a standard sieve; and

8) sealing the carbonated candy-type mass or the sieved crushed carbonated mass in a

hermetic package.

4. (Previously Presented) The process for the preparation of a new carbonated candy-type

vitamin preparation of claim 3, wherein the at least one vitamin is selected from the group

consisting of vitamin A_1 (retinol), vitamin A_2 (3-dehydroretinol), vitamin A_3 , vitamin

D₂(ergocalciferol), vitamin D₃(cholecalfeferol), provitamin D₂(ergosterin), provitamin

 D_3 (dehydrocholesterol), vitamin $E(\alpha$ -tocopherol, β -tocopherol, γ -tocopherol, δ -tocopherol),

vitamin F(linoleic acid, linolenic acid), vitamin K₁, vitamin K₂, vitamin U, vitamin B₁(thiamine),

vitamin B₂(riboflavin), vitamin B₆(pyridoxin), nicotinamide, nicotinic acid, pantothenic acid,

vitamin H(biotin), folic acid, vitamin B₁₂(cyanocobalamin), choline, inositol, vitamin

Docket No.: 1599-0299PUS1

Application No. 10/618,818 Amendment dated June 26, 2008

After Final Office Action of April 3, 2008

 L_1 (anthranilic acid), vitamin L_2 (5'-thiomethyladenosine), vitamin B_{13} (orotic acid), and vitamin

C(ascorbic acid).

5. (Currently Amended) A new carbonated candy-typecrushed, mass-type vitamin

preparation of claim 1, additionally comprising at least one ingredient selected from the group

consisting of trace inorganic compounds, amino-acids, organic acids and other ingredients

necessary to the human being.

6. (Currently Amended) A new carbonated candy-typecrushed, mass-type vitamin

preparation of claim 1, additionally comprising at least one ingredient selected from the group

consisting of glycine, alanine, valine, leucine, isoleucine, serine, threonine, cysteine, methionine,

asparaginic acid, glutaminic acid, lysine, arginine, phenylalanine, tyrosine, histidine,

tryptophane, proline, oxyproline, lactose, fructose, glucose, K1, MgO, Cu₂O, ZnSO₄, MnSO₄,

CaHPO₄, KCl, dried yeast (yeast containing Cr, yeast containing Se, yeast containing Mo).

precipitated calcium carbonate, pomegranate extract, collagen, chitosan, green tea extract,

Ginseng Radix extract, Acanthopanacis Cortex extract, onion extract, malic acid, citric acid,

tartaric acid, fumaric acid, maleic acid and acetic acid.

7. (Previously Presented) A process for the preparation of a new carbonated candy-type

vitamin preparation of claim 5 additionally comprising at least one ingredient selected from the

group consisting of trace inorganic compounds, amino acids, oretanic acids and other

ingredients necessary for the human being.

Docket No.: 1599-0299PUS1

Application No. 10/618,818 Amendment dated June 26, 2008 After Final Office Action of April 3, 2008

8. (Previously Presented) A process for the preparation of a new carbonated candy-type

vitamin preparation of claim 5 additionally comprising at least one ingredient selected from the

group consisting of glycine, alanine, valine, leucine, isoleucine, serine, threonine, cysteine,

methionine, asparaginic acid, glutamic acid lysine, arginine, phenylalanine, tyrosine, histidine,

typrotphane, proline, oxyproline, lactose, fructose, glucose, Kl, MgO, Cu₂O, ZnSO₄, MnSO₄,

CaHPO₄, KCl, dried yeast (yeast containing Cr, yeast containing Se, yeast containing Mo).

precipitated calcium carbonate, pomegranate extract, collagen, chitosan, green tea extract,

Ginseng Radix extract, Acanthopanacis Cortex extract, onion extract, malic acid, citric acid,

tartaric acid, fumaric acid, maleic acid and acetic acid.